Figure 1

1)
$$R' R R R R R'$$

A-X

where R' is the same or

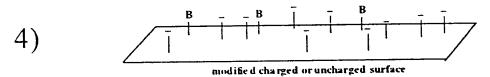
where R' is the same or different than R

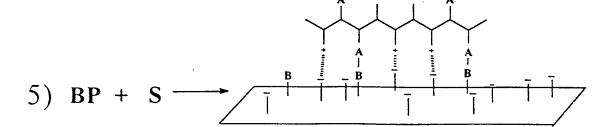
3 biomolecule B-X B-biomolecule

biomolecule/polymer conjugate

biomole cule

biomole cule





BPS

biopolymer/polymer/surface ternary system

Figure 2

Figure 3

$$\begin{matrix} R & \begin{matrix} H & H \\ I & I \\ N & \end{matrix} \end{matrix} \begin{matrix} N & \begin{matrix} N \\ I \\ N \end{matrix} \end{matrix} \begin{matrix} N \\ NH_2 \end{matrix}$$

hydrazine

semicarbazide

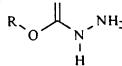
$$R \underset{O}{\overset{H}{\bigvee}}_{N} NH_2$$

$$R \xrightarrow{N} \xrightarrow{N} \xrightarrow{N} \xrightarrow{N} NH_2$$

hydrazide

thiosemicarbazide

thiocarbazide



carbonic acid dihydrazine

hydrazine carboxylate

$$\bigcap_{\mathsf{R}} \bigcap_{\mathsf{R}}$$

aminooxy

R = alkyl, aromatic or heteroaromatic group

R' = H or straight, branched or cyclic alkyl moiety or aromatic or heteroaromatic moiety

carbonyl derivatives

Figure 4

H₂NHN

Figure 5

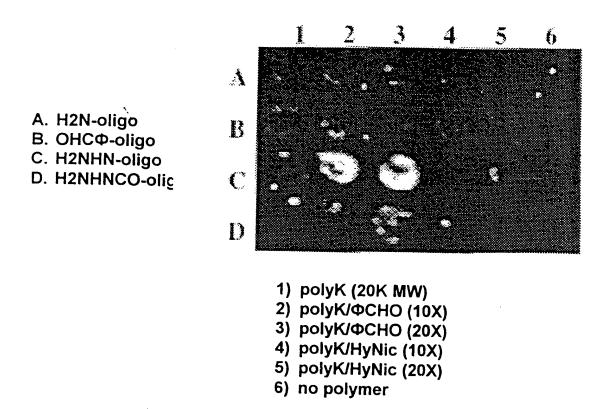
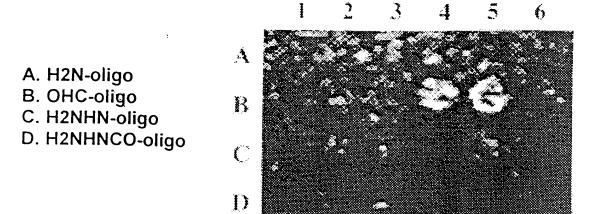


Figure X: Matrix experiment (see Example 2) demonstrating the covalent nature of the immobilization of a 5'-hydrazino oligo//sCHO/poly-l-lysine (polyK) conjugate on a amino modified glass slide following hybridization to its fluorescent complement.

Figure 6



- 1) polyK (20K MW)
- 2) polyK/sCHO (10X)
- 3) polyK/sCHO (20X)
- 4) polyK/HyNic (10X)
- 5) polyK/HyNic (20X)
- 6) no polymer

Figure 7

